

WHAT IS CLAIMED IS:

1. A method of ameliorating a symptom of a prolactin receptor-related condition in a subject in need of such amelioration, comprising: administering to said subject a human growth hormone-based prolactin receptor antagonist and zinc in an amount effective to ameliorate said symptom.
2. A method of treating a prolactin receptor-related condition in a subject in need of such treatment, comprising: administering to said subject a human growth hormone-based prolactin receptor antagonist and zinc in an amount effective to treat such condition.
3. A method of preventing a prolactin receptor-related condition in a subject in need of such prevention, comprising: administering to said subject a human growth hormone-based prolactin receptor antagonist and zinc in an amount effective to treat such condition.
4. The method of Claim 1, 2, or 3 wherein the condition is breast cancer.
5. The method of Claim 1, 2, or 3 wherein the condition is selected from the group consisting of hyperprolactemia, breast cancer, mammary carcinoma, adenocarcinoma, lobular (small cell) carcinoma, intraductal carcinoma, medullary breast cancer, mucinous breast cancer, tubular breast cancer, papillary breast cancer, Paget's disease, inflammatory breast cancer, and hormone dependent tumors of the breast.
6. The method of claim 1, 2, or 3 wherein the condition is prostate cancer.
7. The method of claim 1, 2, or 3 wherein the condition is selected from the group consisting of benign prostate hyperplasia, adenocarcinoma, leiomyosarcoma, rhabdomyosarcoma, hyperprolactemia, and hormone dependent tumors of the prostate.
8. The method of claim 1, 2, or 3 wherein said antagonist is administered to a tissue with an effective local concentration of zinc.
9. The method of claim 8 wherein the tissue is breast tissue.

10. The method of claim 8 wherein the tissue is prostate tissue.
11. The method of claim 4, 5, or 9 wherein said antagonist is administered in an amount of about 0.001 mg/kg/day to about 30 mg/kg/day and the zinc is administered in an amount of about 0.1 mg/kg/day to about 10 mg/kg/day.
12. The method of claim 6, 7, or 10 wherein said antagonist is administered in a dosage of about 10 mg/kg/day to about 500 mg/kg/day and the zinc is administered in a dosage of about 0.1 mg/kg/day to about 10 mg/kg/day.
13. The method of claim 11 or 12 further comprising monitoring zinc levels for one week to six months after administration of said antagonist and zinc.
14. The method of claim 11 or 12 further comprising monitoring a growth hormone-dependent protein from about one month to six months after administration of said antagonist and zinc.
15. The method of claim 14 wherein the growth hormone-dependent protein is IGF-1, IGFBP-3, or the acid-labile subunit of IGFBP-3.
16. The method of claim 1, 2, or 3 wherein said antagonist and zinc are formulated in a sustained release formulation.
17. The method of claim 16 wherein said zinc is administered orally.
18. The method of claim 1, 2, or 3 wherein the zinc is ZnSO<sub>4</sub>.
19. The method of claim 4 wherein said antagonist and zinc are administered in combination with chemotherapy, surgery, or radiation.
20. The method of claim 4, wherein said antagonist and zinc are administered in combination with estrogen receptor antagonist or HER-2 receptor antagonist.

21. The method of claim 5 wherein said condition is hyperprolactemia and said antagonist and zinc is administered in combination with a dopamine agonist.

22. The method of claim 6 wherein said antagonist and zinc are administered in combination with radiation, surgery, or an androgen receptor antagonist

23. The method of claim 7 wherein said condition is benign prostate hyperplasia and said antagonist and zinc is administered in combination with an adrenergic receptor antagonist, an adrenergic receptor agonist, or an androgen receptor antagonist

24. The method of claim 7 wherein said condition is hyperprolactemia and said antagonist and zinc is administered in combination with a dopamine agonist.

25. A pharmaceutical composition comprising a human growth hormone-based prolactin receptor antagonist and an effective amount of zinc.